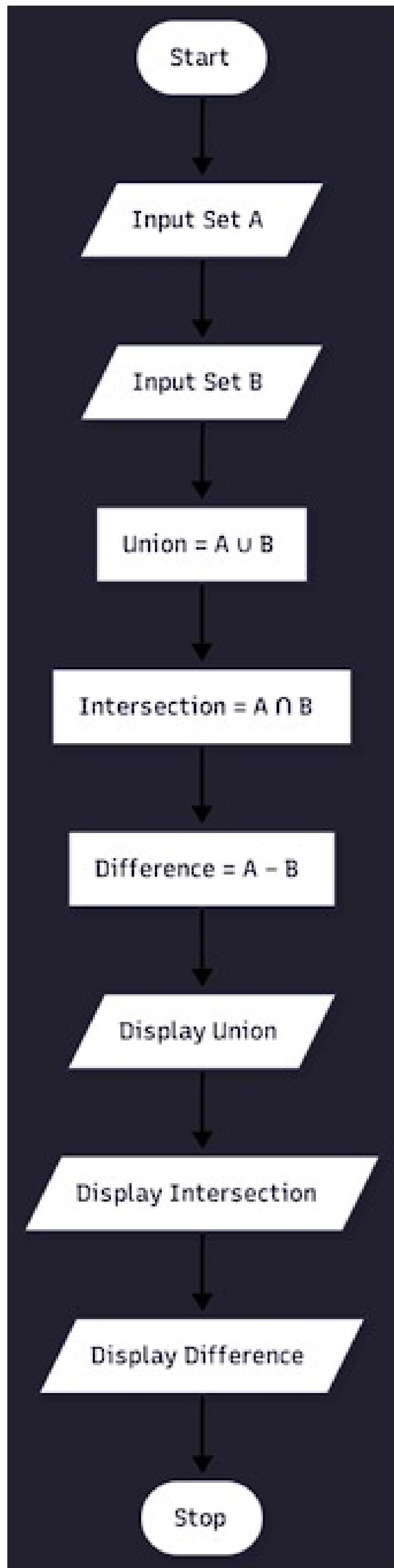


Algorithm: Set Operations (Union, Intersection, Difference)

- 1. Start**
- 2. Input Set A**
- 3. Input Set B**
- 4. Compute Union**
 - o $\text{Union} = A \cup B$
- 5. Compute Intersection**
 - o $\text{Intersection} = A \cap B$
- 6. Compute Difference**
 - o $\text{Difference} = A - B$
- 7. Display Union**
- 8. Display Intersection**
- 9. Display Difference**
- 10. Stop**



Course

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Programming and Problem Solving Lab - TE7287 - II Sem - 2026

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4. Experiment - 4

4.1. Programs

4.1.1. Set Operations

5. Experiment - 5

5.1. Programs

5.1.1. Leap Year Checker

5.1.2. Student Grade Based on Aggregate

6. Experiment - 6

6.1. Programs

6.1.1. Incremented Date

6.1.2. Factorial of a Number

7. Experiment - 7

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4.1.1. Set Operations

18:05

Write a Python program to perform union, intersection and difference operations on *Set A* and *Set B*.

Input Format:

- First Line prompts "Set A: " followed by space-separated list of integers for *Set A*.
- The second input prompts "Set B: " followed by space-separated list of integers for *Set B*.

Output Format:

- The first line prints "Union: " followed by the union of *Set A* and *Set B*.
- The second line prints "Intersection: " followed by the intersection of *Set A* and *Set B*.
- The third line prints "Difference: " followed by the difference of *Set A* and *Set B*.

Note:

- If there is no intersection between the two sets, the program prints an empty set, which appears as "set()" in the output.
- Please refer to the visible test cases for better understanding.

Sample Test Cases

setoperat...

```
1 # Type Content here...
2 set_a = set (map(int, input("Set A: ").split()))
3 set_b = set (map(int, input("Set B: ").split()))
4
5 union_set = set_a | set_b
6 intersection_set = set_a & set_b
7 difference_set = set_a - set_b
8
9 print("Union:", union_set)
10 print("Intersection:", intersection_set)
11 print("Difference:", difference_set)
```

Terminal Test cases

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